

CLAIMS

1. A medical device, comprising:
 - a hollow housing having an aperture in a wall of the housing, the aperture forming a rim;
 - a needle having a sharpened tip operable between an extended position in which the sharpened tip is exposed for use and a retracted position in which the needle is shielded against inadvertent contact;
 - a biasing element biasing the needle toward the retracted position;
 - a needle hub having a cylindrical body axially displaceable within the housing between a forward position and a rearward position, the needle hub having a central bore for receiving the needle, wherein the needle is fixedly attached to the needle hub, the needle hub further comprising a connector adjacent the rearward end of the hub configured for providing a fluid tight connection between a fluid line and the needle;
 - a needle retainer releasably retaining the needle in the projecting position against the bias of the biasing element, comprising:
 - a radially deformable arm attached to the needle hub and projecting radially outwardly from the needle hub; and
 - an actuator disposed at the end of the arm releasably engaging the rim of the locking aperture and having a surface directly manually operable from outside the housing, wherein depressing the actuator releases the needle whereupon the biasing element displaces the needle hub into the rearward position;
 - a locking flange projecting radially outwardly from the needle hub, axially spaced from the latch of the needle retainer;
 - a locking latch projecting radially inwardly from the wall of the housing, wherein the latch is configured to engage the locking flange to impede rearward axial movement of the needle hub is displaced into the rearward position; and

a forward stop operable to impede forward axial movement of the needle hub after the needle hub is displaced into the rearward position, wherein the forward stop is deformed radially as the needle hub is displaced from the forward position to the rearward position;

wherein the biasing element has a biasing force between an upper limit and a lower limit, the lower limit being defined by the amount of axial force required to effectuate radial displacement of the forward stop during retraction and the upper limit being defined by the amount of axial force required to overcome the engagement between the locking latch and the locking flange, and the bias of the biasing element.

2. The medical device of claim 1 wherein the forward edge of the actuator forms the forward stop.
3. The medical device of claim 1 comprising a pair of substantially planar wings connected to the housing, projecting radially outwardly from the housing, and being displaceable radially about the axis of the housing.
4. The medical device of claim 3 wherein at least a portion of the wings are disposed forwardly of the aperture in the housing.
5. The medical device of claim 1 wherein the hub is disposed within the housing in the forward position.
6. The medical device of claim 1 comprising a flexible cannula fixedly attached to the forward end of the housing, sheathing a portion of the needle when the needle is in the projecting position, wherein when the needle is displaced into the retracted position, the needle is in fluid communication with the cannula.

7. The medical device of claim 6 comprising a seal formed between the housing and the needle rearward of the cannula, to provide a fluid tight seal between the housing and the needle to prevent fluid from leaking through the cannula into the housing.
8. The medical device of claim 7 comprising a pair of substantially planar wings attached to the housing, wherein the seal is disposed forwardly of the wings.
9. The medical device of claim 1 wherein the rearward end of the housing has an opening that is larger than the cylindrical body of the needle hub and smaller than the locking flange, such that in the rearward position, the needle hub projects rearward through the opening.
10. The medical device of claim 1 comprising;
a fluid line connectable with the connector, comprising a second connector;
a second hollow housing connectable with the second connector,
having a generally open rearward end for receiving a specimen container sealed by a pierceable seal;
a second needle attached to the second housing having a sharpened tip projecting into the interior of the second housing, operable to pierce the pierceable seal.
11. A method for drawing fluid from a patient, comprising the steps of:
providing the device of claim 10;
inserting the first needle into the patient;
attaching the fluid line to the connector;
attaching the second housing to the fluid line;
providing a needle seal sealing the second needle to prevent blood from flowing through the second needle;
depressing the actuator to displace the needle into the retracted

- position;
- providing a specimen container having a pierceable seal; and
- inserting the specimen container into the second housing so that the second needle pierces the pierceable seal and the specimen container is in fluid communication with the needle, wherein the step of inserting also pierces the needle seal allowing fluid to flow from the patient into the specimen container.
12. The method of claim 11 comprising the steps of:
- withdrawing the specimen container from the second housing;
- providing a second container having a pierceable seal; and
- inserting the second specimen container into the second housing so that the second needle pierces the seal of the second specimen container and the second specimen container is in fluid communication with the needle.